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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,429	09/15/1999	JOHN S. HENDRICKS	60136.0095USD2	7434
23552	7590	09/09/2009		
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER SALTARELLI, DOMINIC D	
			ART UNIT 2421	PAPER NUMBER
			MAIL DATE 09/09/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/396,429

Applicant(s)

HENDRICKS ET AL.

Examiner

DOMINIC D. SALTARELLI

Art Unit

2421

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-9, 14, 18, 19, 23, 24, 28, 29, 42, 43, 45-50, 56 and 59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-9, 14, 18, 19, 23, 24, 28, 29, 42, 43, 45-50, 56 and 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 26, 2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to Banker, Hoarty, and Palazzi have been considered but are not persuasive. Due to applicant's amendments, the grounds of rejection in view of Banker, Hoarty, and Palazzi have been revised to address each of the amended limitations, as explained more fully below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-9, 14, 18, 19, 23, 24, 28, 29, 42, 43, 45-50, 56, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker et al. (5,357,276, of record)

[Banker] in view of Hoarty et al. (5,526,034, of record) [Hoarty] and Palazzi III, et al. (5,327,554, of record) [Palazzi].

Regarding claims 1, 14, 24, and 42, Banker discloses a hardware upgrade for a set top terminal (fig. 2B, expansion card 138) for use with a television program delivery system with menu selection of programs, the set top terminal having a microprocessor and microprocessor instructions for prompting generation of menus (figs. 5A-7B), the hardware upgrade comprising:

an interface for communication with a microprocessor of the set top terminal and providing data to the microprocessor of the set top terminal (the means by which expansion card 138 is coupled to the subscriber terminal, see fig. 2B);

the set top terminal receives television program signals based on subscriber input (col. 6, lines 26-42 and col. 7, line 67 - col. 8 line 6); and

a hardware upgrade microprocessor coupled to the interface for providing enhanced functional capabilities to the set top terminal and memory, coupled to the hardware upgrade microprocessor, for storing data therein (col. 7, lines 49-56),

wherein the hardware upgrade is a card insertable into a card receiving slot of the set top terminal (via connector 200, col. 7, lines 49-56, where the hardware upgrade is a card, and is thus inserted via a card receiving slot); and

allowing actual transactions using two-way communications over a telephone type module with an interactive service via submenus (figs. 5A-7B), and the interface to the terminal comprises:

interactive software stored in the memory to provide enhanced functional capabilities for the set top terminal (the expansion card provides additional memory for additional features, col. 7, lines 49-56, wherein the impulse pay-per-view feature is optional, col. 7, lines 57-66); and

While Banker does teach that an impulse pay-per-view module of the telephone type is optional (col. 7, lines 57-66), Banker fails to disclose the interface receives subscriber input from the microprocessor of the set top terminal for processing and the hardware upgrade comprises a modem connected to the interface for communicating with one or more headends, adding a data modulation and demodulation function to the set top terminal such that data may be retrieved from the one or more headends and stored the memory, wherein the data comprises information from the interactive service for accessing an on-line database, and wherein the interactive software is processed by the hardware upgrade microprocessor and processes subscriber input received from the set top terminal via the interface associated with the enhanced functional capabilities.

In an analogous art, Hoarty teaches that it was known in the art at the time for set top devices with expansion ports to support insertion of a modem device

into said expansion port to add additional functionality to the set top device (col. 16 line 60 - col. 17 line 5).

It would have been obvious at the time to a person of ordinary skill in the art to modify the hardware upgrade of Banker to include a data modulation and demodulation function (modem) to the hardware upgrade card, as taught by Hoarty.

Banker and Hoarty fail to disclose the interface receives subscriber input from the microprocessor of the set top terminal for processing and using said modulation and demodulation function such that data may be retrieved from the one or more headends and stored in the memory wherein the data comprising information from the interactive service for accessing an on-line database, and wherein the interactive software is processed by the hardware upgrade microprocessor and processes subscriber input received from the set top terminal via the interface associated with the enhanced functional capabilities.

In an analogous art, Palazzi discloses a set top device that includes an interface which allows connection of a modem which enables the device to communicate with a host database for retrieving and storing data comprising information relating to interactive services (col. 3 line 64 - col. 4 line 35; col. 8 line 51 - col. 9 line 2; and col. 9, lines 41-51), wherein the software for enabling a user of a set top device to submit input which is acted on by the terminal's own microprocessor is resident in the terminal (col. 6, lines 18-38), adding such

functionality without requiring a fully integrated, specialized, and thus more costly, receiver (col. 1, lines 57-64).

It would have been obvious at the time to a person of ordinary skill in the art to modify the hardware upgrade of Banker to include retrieving data from the one or more headends and storing it in the memory wherein the data comprising information from the interactive service for accessing an on-line database, wherein the interactive software is processed by the hardware upgrade microprocessor and processes subscriber input received from the set top terminal via the interface associated with the enhanced functional capabilities, as taught by Palazzi. In this combination, since Banker has disclosed means for receiving user input (Banker, fig. 2A, input means 122, 124, and 126), using an additional device for user input (Palazzi teaches using a touch tone telephone, fig. 1, telephone 2) is unnecessary, as it is obvious to simply route Banker's conventionally received user input to the terminal device of Palazzi to achieve the same functionality.

Regarding claims 4 and 7, Banker, Hoarty, and Palazzi disclose the hardware upgrade of claim 1, wherein the modem is capable of communicating with the interactive service [on-line database] (communications with the host is a two way connection through the modem, Palazzi, col. 9, lines 13-29).

Regarding claims 5 and 8, Banker, Hoarty, and Palazzi disclose the hardware upgrade of claims 4 and 7, wherein the interactive service [on-line database] is outside of the television program delivery system (Banker and Palazzi both support using telephone lines for the two data transmission between the user terminal and host, see Banker, col. 7, lines 57-66 and Palazzi, col. 8, lines 40-50).

Regarding claims 6 and 9, Banker, Hoarty, and Palazzi disclose the hardware upgrade of claims 4 and 7, wherein the interactive services [on-line databases applications] include home shopping, news, financial information, and banking (Palazzi, col. 9 line 61 - col. 10 line 4).

Regarding claims 18 and 29, Banker, Hoarty, and Palazzi disclose the system of claims 14 and 24, but fails to disclose the terminal is an HDTV terminal.

The use of HDTV terminals is notoriously well known in the art, as the first demonstration of HDTV technology was held in the US as early as 1981, and HDTV terminals allow users to enjoy much higher resolutions thus better picture quality over standard definition receivers receiving standard definition broadcasts.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system of Banker to be an HDTV terminal, allowing users to

enjoy much higher resolutions thus better picture quality over standard definition receivers receiving standard definition broadcasts.

Regarding claims 19 and 23, Banker, Hoarty, and Palazzi disclose the terminal of claim 14, further disclosing additional hardware upgrades connectable to the terminal that include a storage hardware upgrade (Banker, col. 7, lines 49-56), but fail to disclose the terminal supports multiple hardware upgrades at once.

Systems which have been designed to support additional hardware through expansion slots are often designed to support several at once, taking full advantage of the inherent flexibility afforded a system which is compatible with add on hardware (such as the type described by Banker), as the number of expansion slots a system can support is limited only by the amount of space available in the chassis and the amount of processor and bus resources available.

Therefore, it would have been obvious at the time to a person of ordinary skill in the art to modify the terminal of Banker, Hoarty, and Palazzi to include supporting multiple hardware upgrades at once, taking full advantage of the inherent flexibility afforded a system which is compatible with add on hardware.

Regarding claim 28, Banker, Hoarty, and Palazzi disclose the system of claim 24, wherein the television program delivery system is a satellite broadcast system (Banker, col. 3, lines 46-49).

Regarding claim 43, Banker, Hoarty, and Palazzi disclose the method of claim 42, wherein the received data comprises information concerning the television program (Banker teaches a type of received data is in regards to video on demand ordering information, col. 9, lines 25-54, one of the types of "screens" that are updated, as taught by Palazzi, col. 9, lines 21-29).

Regarding claims 45 and 48, Banker, Hoarty, and Palazzi disclose the method of claim 42, including communicating with an interactive service [on-line database] (Palazzi, col. 9, lines 13-29).

Regarding claims 46 and 49, Banker, Hoarty, and Palazzi disclose the method of claims 45 and 48, wherein the interactive service [on-line database] is outside of the television program delivery system (Banker, Hoarty, and Palazzi both support using telephone lines for the two data transmission between the user terminal and host, see Banker, col. 7, lines 57-66 and Palazzi, col. 8, lines 40-50).

Regarding claims 47, 50, and 56, Banker, Hoarty, and Palazzi disclose the hardware upgrade of claims 42, 45, and 48, wherein the interactive services [on-line databases applications] include home shopping, news, financial information [economics], and banking (Palazzi, col. 9 line 61 - col. 10 line 4).

Regarding claim 59, Banker, Hoarty, and Palazzi disclose the method of claim 42, including generating a menu on a television (Banker, figs. 5A-7B), wherein the subscriber input comprises menu selections (Banker, col. 6, lines 43-53).

Conclusion

5. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIC D. SALTARELLI whose telephone number is (571)272-7302. The examiner can normally be reached on Monday - Friday 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2421

/Dominic D Saltarelli/

Primary Examiner, Art Unit 2421